APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,037	06/24/2003	Cristian Petculescu	MSFT-1587/302202.1	1781

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EXAMINER
HWANG, JOON H

ART UNIT	PAPER NUMBER
2166	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	10/603,037	PETCULESCU ET AL.
Office Action Summary	Examiner	Art Unit	
	Joon H. Hwang	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 December 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-6,8-11,13-16,18-24,26,27 and 29-48</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3-6,8-11,13-16,18-24,26,27 and 29-48</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The claims 1, 3-6, 8-11, 13-16, 18-24, 26-27, and 29-48 are pending.

Response to Amendment

2.   The declaration filed on 12/11/2006 under 37 CFR 1.131 is sufficient to overcome the Malloy et al. (U.S. Publication No. 2004/0122844) reference.

Response to Arguments

3.   Applicant's arguments, see "Claim Rejections-35 U.S.C. 102" section on pages 10-11 of the Remark, filed on 12/11/06, with respect to the rejection(s) of claim(s) 1, 3-6, 8-11, 13-16, 18-24, 26-27, and 29-48 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Colossi et al. ("Relational extensions for OLAP, IBM Systems Journal, Vol. 41, No. 4, 2002, pages 714-731, Accepted for publication August 19, 2002).

Claim Rejections - 35 USC § 102

4.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5.   Claims 1, 3-6, 8-11, 13-16, 18-24, 26-27, and 29-48 are rejected under 35 U.S.C. 102(a) as being anticipated by Colossi et al. ("Relational extensions for OLAP,

IBM Systems Journal, Vol. 41, No. 4, 2002, pages 714-731, Accepted for publication

August 19, 2002).

With respect to claim 1, Colossi teaches defining a dimension comprising a

plurality of attributes (i.e., a dimension in OLAP, "OLAP basics" on page 715, fig. 2 on

page 717, and fig. 6 on page 724; a dimension object, "Multidimensional layer" on

pages 724-725). Colossi teaches assigning each attribute to a respective column of the

database (i.e., attribute and join of dimension, fig. 6 on page 724 and "Base/relational

layer" on page 725). Colossi teaches defining relationships between the attributes (i.e.,

dimension hierarchy, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724,

"Multidimensional layer" on pages 724-725, and "Base/relational layer" on page 725),

wherein said relationships are not subject to restrictions placed on the database (i.e.,

multiple hierarchies of dimension, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6

on page 724, "Multidimensional layer" on pages 724-725, "Base/relational layer" on

page 725, and fig. 7 on page 725). Colossi teaches accessing the database via the

dimension (i.e., a relational database is accessed via dimension, "OLAP sales cube

example" on pages 725-726, fig. 8 on page 726, fig. 6 on page 724, and fig. 5 on page

722).

With respect to claim 3, Colossi teaches defining at least one hierarchy

comprising a sequence of the attributes (i.e., dimension hierarchy, "OLAP basics" on

page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on pages

724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 4, Colossi teaches each hierarchy defines a drill down path

for accessing the database (i.e., Drill-down, fig. 3 on page 718 and left column on page

717).

With respect to claim 5, Colossi teaches a hierarchy contains one attribute (i.e.,

dimension hierarchy, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724,

"Multidimensional layer" on pages 724-725, "Base/relational layer" on page 725, and fig.

7 on page 725).

With respect to claim 6, Colossi teaches the act of defining the at least one

hierarchy is independent of the database (i.e., multiple hierarchies of dimension, "OLAP

basics" on page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on

pages 724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 8, Colossi teaches the database is a relational database

(i.e., a relational database in fig. 6 on page 724).

With respect to claim 9, Colossi teaches the dimension is utilized with an on line

analysis processing (OLAP) system ("OLAP basics" on pages 715-719).

With respect to claim 10, Colossi teaches an application programming interface

(API) comprising means for performing the method of claim 1 (fig. 1 on page 716 and

upper right column on page 715).

Claims 11, 13-16, and 18-19 are essentially the same as claims 1, 3-6, and 8-9

except that it sets forth the claimed invention as a computer-readable medium rather

than a method and rejected for the same reasons as applied hereinabove.

Claims 20-24 and 26 are essentially the same as claims 1, 3-6 and 8-9 except that it sets forth the claimed invention as a system rather than a method, wherein for claim 20, Colossi further teaches a processor coupled to a storage device, the storage device comprising a database (fig. 1 on page 716, fig. 3 on page 718, fig. 10 on page 727, and left column on page 717), therefore, claims 20-24 and 26 are rejected for the same reasons as applied hereinabove.

Claims 27 and 29-31 are essentially the same as claims 1, 3, 6, and 9-10 except that it sets forth the claimed invention as a system rather than a method and rejected for the same reasons as applied hereinabove.

The limitations of claims 32-39 are rejected in the analysis of claims 1, 3-6, and 8-9, and these claims are rejected on that basis, wherein for claim 37, Colossi further teaches the logical structure is defined independent of restrictions associated with the database (i.e., multiple hierarchies of dimension, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on pages 724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 40, the limitations of claim 40 are similar to the limitations of claim 1 above. Colossi further teaches receiving a data retrieval request including a dimension ("Execute Web service" on pages 728-730). Therefore, the limitations of claim 40 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 41, Colossi teaches providing the retrieved data in response to the data retrieval request (fig. 9 on page 727 and fig. 3 on page 718).

With respect to claim 42, Colossi teaches the data retrieval request further including at least hierarchy comprising a sequence of the attributes (i.e., a drill up/down operation request, fig. 3 on page 718 and left column on page 717).

With respect to claim 43, Colossi teaches each hierarchy defines a drill down path for accessing the database (i.e., Drill-down, fig. 3 on page 718 and left column on page 717).

With respect to claim 44, Colossi teaches a hierarchy contains one attribute (i.e., dimension hierarchy, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on pages 724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 45, Colossi teaches each sequence is defined independent of restrictions associated with the database (i.e., multiple hierarchies of dimension, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on pages 724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 46, Colossi teaches the relationships between the attributes are defined independent of restrictions associated with the database (i.e., multiple hierarchies of dimension, "OLAP basics" on page 715, fig. 2 on page 717, fig. 6 on page 724, "Multidimensional layer" on pages 724-725, "Base/relational layer" on page 725, and fig. 7 on page 725).

With respect to claim 47, Colossi teaches the database is a relational database (i.e., a relational database in fig. 6 on page 724).

With respect to claim 48, Colossi teaches the database is capable of being utilized with an on line analysis processing (OLAP) system ("OLAP basics" on pages 715-719).

6.   Claims 1, 3-6, 8-11, 13-16, 18-24, 26-27, and 29-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Tuzhilin et al. (U.S. Publication No. 2004/0103092).

With respect to claim 1, Tuzhilin teaches defining a dimension comprising a plurality of attributes (i.e., DEFINE DIMENSION command, sections [0093]-[0096] on page 9). Tuzhilin teaches assigning each attribute to a respective column of the database (i.e., columns of a relational table correspond to attributes of a dimension, section [0123] on page 11). Tuzhilin teaches defining relationships between the attributes (i.e., a dimension hierarchy, section [0079] on page 7), wherein said relationships are not subject to restrictions placed on the database (i.e., a hierarchy or profiles of a dimension, section [0016] on page 2 and sections [0066]-[0069] on pages 6-7). Tuzhilin teaches accessing the database via the dimension (section [0124] on page 11 and sections [0104]-[0110] on pages 9-10).

With respect to claim 3, Tuzhilin teaches defining at least one hierarchy comprising a sequence of the attributes (i.e., a dimension hierarchy, section [0079] on page 7).

With respect to claim 4, Tuzhilin teaches each hierarchy defines a drill down path for accessing the database (i.e., a dimension hierarchy, section [0079] on page 7, sections [0123]-[0124] on page 11, and fig. 6).

With respect to claim 5, Tuzhilin teaches a hierarchy contains one attribute (i.e., a dimension hierarchy, section [0079] on page 7).

With respect to claim 6, Tuzhilin teaches the act of defining the at least one hierarchy is independent of the database (i.e., a hierarchy or profiles of a dimension, section [0016] on page 2 and sections [0066]-[0069] on pages 6-7).

With respect to claim 8, Tuzhilin teaches the database is a relational database (i.e., a relational database, section [0124] on page 11).

With respect to claim 9, Tuzhilin teaches the dimension is utilized with an on line analysis processing (OLAP) system (sections [0124] and [0127] on page 11).

With respect to claim 10, Tuzhilin teaches an application programming interface (API) comprising means for performing the method of claim 1 (section [0103] on page 9).

Claims 11, 13-16, and 18-19 are essentially the same as claims 1, 3-6, and 8-9 except that it sets forth the claimed invention as a computer-readable medium rather than a method and rejected for the same reasons as applied hereinabove.

Claims 20-24 and 26 are essentially the same as claims 1, 3-6 and 8-9 except that it sets forth the claimed invention as a system rather than a method, wherein for claim 20, Tuzhilin further teaches a processor coupled to a storage device, the storage device comprising a database (i.e., a relational database, section [0124] on page 11

and fig. 2), therefore, claims 20-24 and 26 are rejected for the same reasons as applied hereinabove.

Claims 27 and 29-31 are essentially the same as claims 1, 3, 6, and 9-10 except that it sets forth the claimed invention as a system rather than a method and rejected for the same reasons as applied hereinabove.

The limitations of claims 32-39 are rejected in the analysis of claims 1, 3-6, and 8-9, and these claims are rejected on that basis, wherein for claim 37, Tuzhilin further teaches the logical structure is defined independent of restrictions associated with the database (i.e., a hierarchy or profiles of a dimension, section [0016] on page 2 and sections [0066]-[0069] on pages 6-7).

With respect to claim 40, the limitations of claim 40 are similar to the limitations of claim 1 above. Tuzhilin further teaches receiving a data retrieval request including a dimension (sections [0104]-[0110] on pages 9-10). Therefore, the limitations of claim 40 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 41, Tuzhilin teaches providing the retrieved data in response to the data retrieval request (section [0124] on page 11).

With respect to claim 42, Tuzhilin teaches the data retrieval request further including at least hierarchy comprising a sequence of the attributes (sections [0104]-[0110] on pages 9-10).

With respect to claim 43, Tuzhilin teaches each hierarchy defines a drill down path for accessing the database (i.e., a dimension hierarchy, section [0079] on page 7, sections [0123]-[0124] on page 11, and fig. 6).

With respect to claim 44, Tuzhilin teaches a hierarchy contains one attribute (i.e., a dimension hierarchy, section [0079] on page 7).

With respect to claim 45, Tuzhilin teaches each sequence is defined independent of restrictions associated with the database (i.e., a hierarchy or profiles of a dimension, section [0016] on page 2 and sections [0066]-[0069] on pages 6-7).

With respect to claim 46, Tuzhilin teaches the relationships between the attributes are defined independent of restrictions associated with the database (i.e., a hierarchy or profiles of a dimension, section [0016] on page 2 and sections [0066]-[0069] on pages 6-7).

With respect to claim 47, Tuzhilin teaches the database is a relational database (i.e., a relational database, section [0124] on page 11).
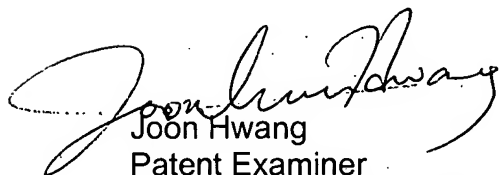
With respect to claim 48, Tuzhilin teaches the database is capable of being utilized with an on line analysis processing (OLAP) system (sections [0124] and [0127] on page 11).

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang
Patent Examiner
Technology Center 2100

3/2/07